

Applicants: Thomas M. Jessell, et al.
U.S. Serial No: 09/820,598
Filed: March 29, 2001
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In the claims:

Please replace the claims with the listing of claims below.

--1. - 26. (previously cancelled) --

--27. (currently amended) An isolated protein ~~or fragment thereof encoded by an isolated nucleic acid or fragment thereof~~ comprising consecutive amino acids having the amino acid sequence set forth in SEQ ID NO:1 which encodes a homeobox motor neuron restricted pattern protein designated MNR2 or a fragment having the biological activity thereof.--

--28. - 37. (previously cancelled) --

--38. (withdrawn) A method of inducing differentiation of a somatic motor neuron which comprises expressing the protein of claim 27 in a neural progenitor cell, so as to thereby induce differentiation of the somatic motor neuron.--

--39. - 44. (previously cancelled) --

--45. (currently amended) A method of inducing differentiation of a neural progenitor cell into a somatic motor neuron in a subject comprising administering to the subject the protein of claim 27 in an amount effective to induce differentiation of the neural progenitor cell into a somatic motor neuron, so as to thereby induce differentiation of the neural

progenitor cell into a somatic motor neuron in the
subject.--

--46. - 47. (previously cancelled) --

--48. (previously presented) A pharmaceutical composition comprising the protein of claim 27 and a pharmaceutically acceptable carrier.--

--49. (currently amended) A method for treating a subject afflicted with an abnormality associated with a lack of one or more normally functioning motor neurons which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to [[a]] generate a somatic motor neuron from an undifferentiated motor neuron precursor cell in the subject, thereby treating the subject afflicted with the abnormality associated with the lack of one or more normally functioning motor neurons.--

--50. (previously presented) A method of treating a subject afflicted with a neurodegenerative disease which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to generate a somatic motor neuron from an undifferentiated precursor motor neuron cell in the subject, thereby treating the subject afflicted with the neurodegenerative disease.--

--51. (previously cancelled) --

--52. (currently amended) A method of treating a subject afflicted with an acute nervous system injury which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to [[a]] generate a motor neuron from an undifferentiated precursor motor neuron cell in the subject, thereby treating the subject afflicted with the acute nervous system injury.--

--53. - 59. (previously cancelled) --

--60. (previously presented) A method of treating a subject afflicted with a neuromuscular disease which comprises introducing an amount of the pharmaceutical composition of claim 48 effective to activate acetylcholine to activate muscle cells, so as to thereby treat the subject afflicted with the neuromuscular disease.--

--61. - 124. (previously cancelled) --

--125. (currently cancelled) --

--126. (allowed) An isolated protein comprising consecutive amino acids having the amino acid sequence set forth in SEQ ID NO: 1.--

--127. (previously presented) The protein of claim 27, wherein the protein is a vertebrate protein.--

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--128. (currently amended) The protein of claim 127, wherein
the protein is a chick,~~mouse, rat, or human~~ protein.--

--129. (withdrawn) A monoclonal antibody directed to an
epitope of the protein of claim 128.--

--130. (withdrawn) A polyclonal antibody directed to an
epitope of the protein of claim 128.--